

CLAIMS

1. A method of determining a signal code, the method comprising steps of:

acquiring a signal;

correlating the signal with a first code sequence;

achieving a timing lock in response to the step of correlating the signal with a first code sequence;

transmitting, in response to the step of correlating the signal with a first code sequence, an acknowledgement from a receiver of the signal to a transmitter of the signal ; and

changing, in response to the step of correlating the signal with the first code sequence, to a second code sequence.

2. A method as in claim 1 wherein the step of correlating the signal with the first code sequence comprises the step of correlating the signal with a first pseudo-noise (PN) code sequence.

3. A method as in claim 2 wherein the step of changing to the second code sequence comprises the step of changing to a second PN code sequence.

4. A method as in claim 1 wherein the step of changing to the second code sequence comprises the steps of:

tracking the first code sequence in the receiver of the signal;

changing the first code sequence of a first code generator of the transmitter of the signal to the second code sequence; and

changing the first code sequence of a second code generator of the receiver of the signal to the second code sequence.

5. A method as in claim 4 wherein the steps of changing the first code sequence to the second code sequence in the transmitter and receiver, respectively, comprise the steps of changing from the first code sequence to the second code sequence in the transmitter and receiver, respectively, on the occurrence of a predetermined event.

~~6.~~ A signal code acquisition system comprising:

a first transceiver;

a first multi-rate code generator connected to the first transceiver;

a second transceiver responsive to the first transceiver; and

a second multi-rate code generator connected to the second transceiver.

7. A signal code acquisition system as in claim 6 wherein the first multi-rate code generator comprises a pseudo-noise (PN) code generator.

8. A signal code acquisition system as in claim 6 wherein the second multi-rate code generator comprises a pseudo-noise (PN) code generator.

9. A signal code acquisition system as in claim 6 wherein the second transceiver comprises:

a receiver;

a synchronization detector connected to the receiver; and

a second control circuit connected to the synchronization detector, wherein the second multi-rate code generator is connected to the receiver and the control circuit.

10. A signal code acquisition system as in claim 9 wherein the first transceiver comprises:

a transmitter; and

a first control circuit connected to the transmitter, wherein the first multi-rate code generator is connected to the transmitter and the first control circuit.

11. A signal code acquisition system as in claim 6 wherein the first multi-rate code generator comprises a first dual rate code generator.

12. A signal code acquisition system as in claim 11 wherein the second multi-rate code generator comprises a second dual rate code generator.

~~13.~~ A method of determining a coded signal, the method comprising steps of:

transmitting a first coded signal from a transmitter system;

receiving the first coded signal on a receiver system;

calculating a probability of detection of the first coded signal; and

changing the first coded signal to a second coded signal responsive to the probability of detection (PD) of the first coded signal.

14. A method as in claim 13, wherein the steps of transmitting and receiving the first coded signal comprises the steps of transmitting and receiving a first pseudo-noise (PN) coded signal, respectively.

15. A method as in claim 13, wherein the step of changing the first coded signal to the second coded signal responsive to the PD of the first coded signal comprises

the step of changing to the second coded signal when the PD exceeds about 97%.

16. A method as in claim 15 wherein the step of changing the first coded signal to a second coded signal comprises the steps of:

waiting a predetermined amount of time;

changing a first pseudo-noise (PN) codec of the receiver system to a second PN code after the predetermined amount of time has elapsed; and

changing a second PN codec of the transmitting system to a second PN code after the predetermined amount of time has elapsed.

17. A method as in claim 16 wherein the steps of changing the first and second codecs comprise the steps of changing the first and second codecs contemporaneously.